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EXAMINER

CHOWDHURY, SUMAIYA A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/841,018	Applicant(s) SAHOTA ET AL.	
	Examiner SUMAIYA A. CHOWDHURY	Art Unit 2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25, 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant argues "...the image discussed in Rosser (6750919) is not interactive.

Moreover, it is not true that the morphing is done in a received broadcast, rather the morphing described by Rosser is accomplished before any broadcasting is done." on page 1 of the Remarks filed 3/6/09.

Examiner previously cited Knudson to teach an interactive image. Referring to Fig. 13, 24-26, 27a-27c, Knudson teaches interactive images are displayed, which a user can select to access interactive services. The Examiner has now brought in Rosser (6446261) to teach that the morphing is performed at the STB. Rosser uses occlusion masks to warp an image onto a broadcast at the STB (col. 10, lines 21-51; Fig. 2).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) **18-25** is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim **18** is drawn to functional descriptive material recorded on a **machine-readable medium**. Normally, the claim would be statutory. However, the specification, at paragraphs [0058]-[0059] defines the claimed machine-readable medium as encompassing statutory media such

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as magnetic or optical disks as well as **non-statutory** subject matter such as a carrier waves, infrared signals, etc. In this case, a "machine-readable medium storing instructions" can be broadly interpreted to mean a --machine-readable signal storing instruction--, wherein the signal stores the instructions.

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson et al. (U.S. Patent No. 6,536,041 B1) in view of Rosser (6446261).

Regarding claim 1, Knudson discloses “a system comprising: a display; and a receiver to receive a broadcast and to have an interactive channel bug into the broadcast, the interactive channel bug to facilitate interactivity without the need for tuning to a dedicated channel associated with interactive services, and to provide the broadcast and the interactive channel bug to the display”, i.e., a display 190 as shown in Figure 13 and a receiver (as shown in Figure 1/set top box 52) for receiving interactive broadcasting services from a broadcaster, for example, real time data is providing on the same time with programming and program guides from television facility, and the display further provides an interactive channel controllable ticker including other icons (Fig. 13/item 187) regarding as interactive channel bug to display to the viewer for interactivity services (Fig. 13, 24-26, 27a-27c; and col. 7/lines 36-63 for set top box; col. 13/line 55 to col. 14/line 13 & col. 14/line 45-col. 15/line 13 & col. 15/line 30-42 for details on the controllable ticker wherein the ticker is independent from the television display, so that the user can still watch the television program and view interactive channel ticker for additional information based on the user's preferences and setup, and the category can be changed; the ticker is automatically scrolling, and the user does not need to tune to any dedicated channel associated with interactive services).

Knudson does not further teach in accordance with computer-readable instructions executed by the receiver, to morph an image into the received broadcast without user intervention.

In an analogous art, Rosser teaches using occlusion masks to warp an image onto a broadcast at the STB. The warping takes place at warp unit 100 which is at the STB.(col. 10, lines 21-51).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Knudson's invention to include to include the above mentioned limitation, as taught by Rosser, for the advantage of automating the process morphing informative images into broadcasts at the receiver, thereby to make the insertion behave as if it were part of the natural scene.

As for claims 2-3, Knudson further discloses "wherein the interactive channel bug is a graphical object" (Fig. 13, item 187 provides a graphical object, col. 14/line 14) and "wherein the graphical object includes an interactive broadcast channel branding logo" (Fig. 1/item for a branding logo, col. 14/line 14, since the icon is a television channel icon; or Fig. 25/item 310 for a sponsor logo).

As for claims 4-5, Knudson shows "wherein the receiver selectively causes the interactive channel bug to appear or morph" (Fig. 19 for having the channel ticker or not) and "wherein the interactive channel bug is a launching point for interactive services", i.e., selecting these icons will cause to appear the display of the interactive session for browsing/buying products and services (Fig. 24, and col. 18/line 61 to col. 19/line 27 for icons can be interactively access to other links and information).

As for claim 6, Knudson discloses “wherein the interactive channel bug launches a functionality determined by a broadcaster or network operator, the functionality capable of changing over time”, i.e., the network changes to provide the icons over time based on the request or interest of the user, refer to Fig. 11 and 20, and col. 13/lines 17-36 and col. 17/lines 25-52 for different times set up for the interactive channel ticker).

As for claim 7, Knudson discloses “wherein the form of the interactive channel bug is to change to indicate the availability of new interactive services” (Figs. 11-12 as the live event data feed is updated regularly as if a new interactive service is available, see col. 13/line 17-67).

As for claims 8-9, Knudson discloses “wherein a changed form of the interactive channel bug indicates the availability of interactive services associated with the broadcast” and “wherein a changed form of the interactive channel bug indicates the availability of interactive services associated with a purchase of products or services”, i.e., col. 13/line 55 to col. 14/line 13 & col. 14/line 45-col. 15/line 13 & col. 15/line 30-42 for details on the controllable ticker wherein the ticker is independent from the television display, so that the user can still watch the television program and view interactive channel ticker for additional information based on the user’s preferences and setup, and the category can be changed; the ticker is automatically scrolling for displaying updated and new interactive information; and Fig. 24, and col. 18/line 61 to col. 19/line 27 for icons can be interactively access to other links and information.

Regarding **claims 10-17** of “a method for a display system comprising: receiving a broadcast; receiving an interactive channel bug; morphing the channel bug into the broadcast, the interactive channel bug to facilitate interactivity; and providing the broadcast and the interactive channel bug to the display system” including the step of without the need for tuning to a dedicated channel associated with interactive services, **claims 18-25** of “a machine-readable medium providing instructions, which if executed by a processor, causes the processor to perform an operation comprising: receiving a broadcast; receiving an interactive channel bug; morphing the interactive channel bug into the broadcast, the interactive channel bug to facilitate interactivity; and providing the broadcast and the interactive channel bug to the display system” including the step of without the need for tuning to a dedicated channel associated with interactive services; these claims with same limitations addressed earlier are rejected for the reasons given in the scope of claims 1-9 as discussed in details above.

5. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson and Rosser (6446261) in view of Rosser (6750919).

As for **claims 29-31** contain the limitations of claim 1 and are analyzed as previously discussed with respect to those claims. Claims 29-31 additionally disclose the following which Rosser (6750919) teaches: “a method for providing interactive content comprising: capturing and analyzing a video stream to locate a standard non-

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interactive broadcast bug; determining a position of the standard non-interactive broadcast bug; aligning an interactive bug over the broadcast bug at the position; and displaying the interactive bug over the broadcast bug within the video stream”, Rosser (6750919) teaches a scoreboard or sign is aligned over a back wall behind a batter (col. 7, lines 35-65).

It would have been obvious to one of ordinary skill in the art at the time of applicant’s invention to modify Knudson and Roser (‘261)’s invention to include the above mentioned limitation, as taught by Roser (‘919), such that the superimposed image is unobtrusive to the user, thereby allowing the user to clearly view the broadcast without any obstruction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAIYA A. CHOWDHURY whose telephone number is (571)272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumaiya A Chowdhury/
Examiner, Art Unit 2421

/Annan Q Shang/
Primary Examiner, Art Unit 2424